IN THE SPECIFICATION

Please amend the Specification as follows:

Page 5, line 26 - Page 6, line 22, rewrite this paragraph as follows:

SO_2 is the ratio of the oxyhaemoglobin concentration $[HbO_2]$ to the total concentration of haemoglobin ($[HbO_2] + [Hb]$, where $[Hb]$ is haemoglobin concentration) express as a percentage.

$$SO_2 = \frac{[HbO_2] \times 100}{[HbO_2] + [Hb]}$$

SaO_2 is arterial oxygen saturation.

The reflected absorptions (A) at six wavelengths (500, 528, 550, 560, 572 and 586 nm) are used to calculate two parameters, HbI and OXI:

~~HbI = (A528 - A520) + (A550 - A528) + (A572 - A550) - (A586 - A572)~~

$$HbI = |A_{528} - A_{500}|/28 + |A_{550} - A_{528}|/22 + |A_{572} - A_{550}|/22 + |A_{586} - A_{572}|/14$$

~~OXI = ((A550 - A560) + (A572 - A560)) / HbI~~

$$OXI = (|A_{560} - A_{550}|/10 + |A_{572} - A_{560}|/12) / HbI$$

SO_2 is calculated from the formula:

~~SO2 = 100 * (OXI - OXI0) / (OXI100 - OXI0)~~

$$SO_2 = 100 * (OXI - OXI_0)/(OXI_{100} - OXI_0)$$

Where OXI_0 and OXI_{100} are empirically determined values for OXI at SO_2 values of 0% and 100% in skin. HbI is the haemoglobin index, such that:

$$HbI \times k = [Hb]$$

where k is a constant.